
HOW-TO-PREPARE GUIDE
FOR THE
TRANSPORTATION TECHNOLOGIST, SENIOR (20482)
Analysis and Planning (439) Option
EXAMINATION

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Transportation Technologist, Senior (20482) Analysis and Planning Option (439)

How to Prepare Manual

As a candidate for a position in the Transportation Technologist, Senior (TT, Sr.) – Analysis and Planning option within the Alabama State Merit System, you have indicated your interest in participating in the TT, Sr. -- Analysis and Planning option selection procedure. As a candidate for the TT, Sr. -- Analysis and Planning option, you will be required to participate in an In-Basket which includes a Scheduling Exercise and a Writing Exercise. This guide is provided to acquaint you with the TT, Sr.—Analysis and Planning option job and to help you prepare for the two exercises in the In-Basket. Your score on the In-Basket examination will comprise 100% of your final score on the TT, Sr. -- Analysis and Planning register. Read this information very carefully. This guide contains information which you should find very helpful as you prepare for this examination.

The Transportation Technologist, Senior Testing Procedure

The Transportation Technologist, Senior job consists of five options. These are: Bridge Design (005), Materials and Tests (006), Design (007), Construction (438), and Analysis and Planning (439). If you are interested in applying for more than one option, a separate application is required for each option. A description of the job duties for the Analysis and Planning option will follow later in this booklet. The information in this booklet only applies to the Analysis and Planning option.

A careful analysis of the Transportation Technologist, Senior – Analysis and Planning (A&P) option revealed Knowledges, Skills, and Abilities (KSAs) which are required on the first day of work as a TT, Sr. - A&P option employee. In other words, these KSAs should be possessed by a TT, Sr. - A&P job candidate, before they are hired and before any on-the-job training they may receive.

For the A&P option, option-specific KSAs will be measured in an In-Basket Examination which will consist of a Scheduling Exercise and a Writing Exercise. The Scheduling Exercise and Writing Exercise will be administered to qualified A&P candidates on the same day. **Only applicants who meet the minimum qualifications will be allowed to take the In-Basket examination.** Information regarding the TT, Sr. - A&P Scheduling and Writing Exercises will follow in this booklet.

Test Scheduling

If you are interested in applying for a TT, Sr. – A&P option position, you must **first file an application with the State Personnel Department.** Remember that a separate application is required for each option. It is the applicant's responsibility to ensure the application arrives at State Personnel. Tests are given periodically throughout the year. Do not wait for an official announcement from State Personnel or ALDOT about test dates or application cutoff dates. Instead, if you are interested in applying, you should do so immediately.

Once your application is received, it will be reviewed to ensure you have the minimum qualifications required to qualify for the job. If you meet the minimum qualifications, you will be sent a scheduling postcard that will tell you the TT, Sr. – A&P In-Basket Examination test date, time, and location.

The Transportation Technologist, Senior – Analysis and Planning Job

Transportation Technologist, Senior positions in the A&P option are available statewide. Employees in the A&P option of this class perform technical work in an area of civil engineering which may include some supervisory duties. Some of the areas which employees oversee in this class are bridge inspection, traffic analysis, permits, surveying, and road inventory. There are a large variety of duties within the A&P option. Examples of only some of these duties are listed above.

Job Analysis Results

As stated earlier, the job analysis of the Transportation Technologist, Senior – A&P option revealed KSAs which are necessary for successful job performance in the A&P option and are required upon entry into the job. Listed in Appendix 1 are the KSAs that meet these requirements. Because it is not possible to measure all of these KSAs with the In-Basket, not all will be measured by the examination. The KSAs that will be measured by each exercise in the In-Basket Examination are listed in an upcoming section of this booklet.

When reviewing the KSA statements listed in Appendix 1, the reader should note that the examples following the words “to include”, “such as”, and “as needed to” in the KSA statements are not always intended to be completely inclusive. In other words, there may be questions on the exam which cover areas not directly mentioned as an example in the KSA statements.

In-Basket Description

In an attempt to provide an opportunity for each candidate to demonstrate his/her possession of the knowledges and abilities that will be listed in the upcoming section, an In-Basket examination was developed. The In-Basket will consist of two exercises: 1) Scheduling Exercise and 2) Writing Exercise. Both of these exercises will be described in the upcoming sections of the How To Prepare booklet. Candidates will be allowed three hours to complete the In-Basket examination. Specific timing of the examination will be provided in the Scheduling Letter. Both the Scheduling Exercise and the Writing Exercise should be completed during the allotted time.

In the In-Basket Examination you will be asked to assume the role of “Pat Candidate” who has recently been hired as a Transportation Technologist, Senior in the A&P option. You will be reviewing various materials, scheduling employees for their work week, and you will be required to write a letter to a concerned citizen. Both the Scheduling Exercise and the Writing Exercise are contained in the In-Basket.

Scheduling Exercise Description

The KSAs which will be measured in the Scheduling Exercise are listed on the following page. For the Scheduling Exercise, candidates will complete their answers in an Answer Booklet which will be provided during the examination.

The Scheduling Exercise is designed to measure the following KSAs:

- Ability to organize and plan work activities as needed to manage project, determine appropriate projects stages and accomplish work goals.
- Ability to assign work to subordinates, considering subordinate's strengths and deciding which responsibilities can be delegated as needed to increase work group performance.
- Ability to delegate work to subordinates as needed to ensure that projects, reports, tests, and plans are completed on time.
- Ability to schedule the work of subordinates to include overtime hours and requests for leave as needed to ensure that enough personnel are available in order to complete the work within the assigned time.
- Ability to read and comprehend documents such as letters and correspondence as needed to obtain and provide information to others.
- Ability to attend to several situations and/or problems and/or responsibilities at the same time.
- Ability to set priorities for activities to include individual subordinates' activities and one's own work assignment as needed to deal with several situations or problems at the same time.
- Ability to write legibly as needed to provide instructions to others.
- Ability to manage one's own time as needed to meet project guidelines and plan advance meetings.
- Knowledge of basic management principles such as management by objectives, degree of supervision and hands-on supervision as needed to assess resources and make project assignments.

In this part of the examination, you will be asked to review some information and make various assignments to employees for projects which are scheduled to be performed. You will be asked to perform a number of tasks such as organizing, planning, scheduling, assigning, and/or prioritizing. To successfully complete this part of the examination, you will need to schedule your subordinates to ensure that assigned projects are completed within the designated deadlines. If you are not able to complete a project within the assigned deadline, you will be asked to write a memo explaining why you cannot meet the deadline and providing a possible solution. You must budget your time throughout the In-Basket so that you have completed the Scheduling Exercise and the Writing Exercise within the allotted time for the examination.

In the Scheduling Exercise, you will be provided with information regarding the employees in your section and the projects assigned to your section. You will then be asked to assign employees to projects for each day of a work week. When you complete a Work Schedule sheet, you should be sure to make a work assignment for all employees in your section. For each project to which you will assign personnel, you will write the name of the assigned individual and the time that he/she will be scheduled to stay at this project site. When completing the examination, you will assume that your employees work an eight hour day with a one hour lunch break. On the next page is an example of a completed Work Schedule similar to what you will be required to complete in the Scheduling Exercise.

EXAMPLE WORK SCHEDULE

Projects	Date: March 1
Oak Road	Steve Mills (12-4; 4 hours) Jane Jones (7-10; 3 hours)
Project XYZ	Not scheduled today
Heflin Bridge	Not scheduled today
Sanders Street	No one
Project 678	Not scheduled today
Tumble Bridge	None
South Hwy	Steve Mills (7-11; 4 hours) Jane Jones (12-4; 4 hours)
Project MNO	No
On-Going Projects, Work in Office, Training, and/or Employees on Leave	Kingry Hopper (Office, 7-4; 8 hours) Mark Smith (Annual Leave, 7-4; 8 hours) Jane Jones (Sick Leave, 10-11, 1 hour)

(All employees are scheduled on this Work Schedule for 8 hours each day. They are required to take a one hour lunch break. Employees are either scheduled for a specific project or for the “On-Going Projects, Work in the Office, Training, and/or Employees on Leave”. Note: If you do not schedule a project for a specific day, any of the following notations are acceptable indicators that the project is not scheduled for that day: “Not Scheduled Today”, “No one”, “None”, or “No”.)

All of the work projects in the In-Basket will be described in the information provided on the examination.

Writing Exercise Description

The KSAs which will be measured in the Writing Exercise are listed below. In this exercise, candidates will be required to write a response letter to a concerned citizen. Candidates will be required to write their letter in an Answer Booklet which will be provided during the examination.

The Writing Exercise is designed to measure the following KSAs:

- Ability to compose documents such as letters, status reports, and general correspondence as needed to request and provide information to others.
- Ability to communicate in writing following guidelines for readability to include writing style, content, grammar, and conciseness as needed to clearly present information to a diverse audience.
- Knowledge of grammar to include sentence structure and punctuation as needed to write correspondence and complete forms.
- Ability to write legibly as needed to provide instructions to others.

- Ability to read and comprehend documents such as letters and correspondence as needed to obtain and provide information to others.
- Ability to communicate technical information in writing to include agreements, contracts, bridge inspection reports, certifications, environmental findings, traffic studies, materials write-up for annual reports, and other reports as needed to provide information to supervisors, ALDOT personnel, FHWA personnel, and other governmental agencies.

In this part of the examination, you will prepare a written response to a letter from a concerned citizen. Your response will be handwritten and should communicate your message in a manner that can be readily understood by the general public. Your hand-written response can be printed or written in cursive writing. Your written documents must be legible in order to score the materials.

For the Writing Exercise, you should think about what you want to communicate before you write your final response. You may wish to write down some ideas and/or formulate an initial outline on scratch paper before you begin your response. Your response should completely address the issues and requests made in the instructions. The raters will give you credit based on what is written and how it is written. You must budget your time throughout the In-Basket Examination so that you complete the Scheduling Exercise and the Writing Exercise in the time allotted for the examination.

The Writing Exercise is designed to measure your ability to compose documents and communicate in writing following guidelines for readability to include writing style, content, grammar, and conciseness. The exercise is also designed to measure your knowledge of grammar to include sentence structure and punctuation. This exercise is not designed to measure technical information. All of the information that you will need to include in your letter will be provided in the In-Basket items/background materials. You will be evaluated on how well you communicate the required information to the citizen in your response letter.

A sample item for the writing sample is not within the scope of this How To Prepare booklet. You may want to review material on how to properly format a letter. Information regarding how to properly format a letter can find in many basic English textbooks, at your local library, or on-line (if you have internet access). When writing your letter, you should follow Standard English guidelines including:

- Use of complete sentences that contain proper capitalization at the beginning of the sentence and a period or question mark at the end.
- Use of proper subject-verb agreement (e.g., singular subject requires a singular verb).
- Use of proper word usage (e.g., do not write “personal” when you mean “personnel” or “hear” when you mean “here”).
- Use of correct tense for the context (e.g., “we will be going tomorrow” rather than “we will be going yesterday”).
- Use of correct singular and plural nouns (e.g., “three tasks” and “one door” rather than “three task” and “one doors”).
- Use of the correct plural and possessive for nouns (e.g., “many supervisors” rather than “many supervisor’s”, “men” rather than “mans”, “his problem” rather than “he’s problem”, “supervisor’s expectations” rather than “supervisors expectations”).
- Avoidance of the use of inappropriate abbreviations, shorthand (e.g., “w/o to represent “without”), and symbols (e.g., “@” to represent “at”).

A dictionary will be available in the test room for you to use as a reference if you need it.

Preparing for the Selection Procedure

Candidates often ask how they should study for an exam like this one. It is important to focus on what will be measured and how it will be measured. You should carefully review the knowledges and abilities contained in this booklet as well as the information provided about the two exercises.

The three most important things you can do to help prepare for the TT, Sr. - A&P examination are to (1) review the knowledges and abilities, (2) read this manual to become familiar with the testing process so that you will be more relaxed and not confused during the administration, and (3) **thoroughly** review the information provided about each exercise and be familiar with the things you will need to know in order to provide your responses.

Tips for taking the examination

- Be yourself and use "common sense" when making decisions and responding to the exercises. The exercises are not designed to be tricky. That doesn't mean that the exercises won't be challenging. But, the test developers have been careful to make everything as clear and direct as possible.
- The exercises must be completed within the allotted time. You should budget your time so that the Scheduling Exercise and the Writing Exercise are completed within the three (3) hours allowed for the examination. Use your time wisely. You may want to bring a watch with you to keep up with your time. Please turn off any alarm before you get to the test facility. The selection procedure is not a test of how quickly you can finish. However, it does not allow you all the time you might like to have.
- Before starting the In-Basket, you should carefully read through all of the exam materials provided so you get an idea of what you are expected to accomplish within the examination time limits. Reading through the materials will help you to budget your time effectively so you are able to complete the Scheduling Exercise and the Writing Exercise.
- Carefully review the exercise instructions before you begin the exercise. Make notes on these instructions as you deem appropriate. There is a lot of information contained in these instructions. Be sure you understand the instructions before you start the exercises. Do not hesitate to ask questions. However, the test monitor cannot answer any questions about the content of the exercises.
- You will be allowed to mark or take notes in your test booklet; however the only information that will be scored are the answers you give in your "Answer Booklet". You will be provided with three pieces of scratch paper. These will be collected at the end of the exam.
- It is important that you pay attention to any dates given in the exercises. The date given in an exercise may not be your testing date.
- Write legibly. ASSESSORS CANNOT SCORE WHAT THEY CANNOT READ. Your handwriting must be legible. You may print or write your answers in cursive.
- Take notes while preparing. Feel free to refer back to your notes or the exercise material while responding.

- **DON'T PANIC.** In a test like this one, some parts may seem more difficult to you than other parts. Don't give up. It is unlikely that anyone will obtain a perfect score. If it is hard for you to figure out an answer, it is probably hard for other people too.
- If you find that you have completed the In-Basket Examination before time is called, you might want to review your responses to ensure their accuracy.

What to Expect On the Exam Day

1. Allow plenty of time to get to the test site. Plan to get there at least 30 minutes before the exam is scheduled to begin.
2. Bring your PICTURE IDENTIFICATION and SCHEDULING LETTER when you come to take the exam. During registration, you will be asked to verify the last four digits of your social security number. No photocopied IDs will be accepted.
3. Do not bring cell phones, two-way radios, beepers, pagers or any other noise producing devices with you to the test room. You will not be allowed to have these in the test room.
4. Do not bring your own calculator. You will not need a calculator for completing this examination. You will not be allowed to take a calculator into the test room.
5. Come dressed comfortably. The In-Basket will require approximately two hours and thirty minutes to three hours to complete. The exact amount of time you will be required to be at the test center will be included in your Scheduling Letter.
6. Do NOT bring this booklet or any study materials to the test site. You will not be permitted to bring them in. You will not be allowed to use any study or reference materials during the exam.
7. To protect your own interests, you must bring a PICTURE IDENTIFICATION to the examination site. This can be a valid driver's license, a military identification card, a student identification card, or some other form of PICTURE IDENTIFICATION. You only need one form of PICTURE IDENTIFICATION.
8. The monitor will provide you with instructions concerning restroom availability during the administration. It is important to remember that the time you take to use the restroom is time away from working on the examination. We recommend that you use the restroom before the test begins if possible.
9. Test monitors can answer questions concerning administration issues only. They will not be able to interpret the examination questions for you.
10. Candidates making any disturbance or caught cheating will be disqualified from the exam.
11. You will not be permitted to use any reference material other than the materials provided by the test monitors during the exam.

Administration Contact

The contact for the TT, Sr. – A&P examination is Karen Walkley at (334) 353-8120.

Reasonable Accommodation

If you would like to request special testing accommodations or have any questions concerning the test site or testing conditions, please contact us at the phone number above.

Administrative Questions

You may contact us if you have any administrative questions or concerns about information presented in this booklet. If you fail to appear at the examination on your scheduled date and time, you will need to submit a new application to State Personnel in order to be scheduled for future administrations.

It is not necessary for you to contact us in order to receive your exam grade; you should receive notification of your score by postcard after the scoring is completed. You can expect your scores back in approximately 6 to 8 weeks after the completion of scoring.

Please remember that you will not need OR be allowed to bring anything other than the items previously mentioned to the test site.

Reminders

Please remember that a separate application is required for each option. If you want to apply for more than one TT, Sr. option, a separate application must be submitted for each option.

You will only be allowed to take this examination once every nine months.

It is the applicant's responsibility to ensure their application arrives at State Personnel. Tests are given periodically throughout the year. Do not wait for an official announcement from State Personnel or ALDOT about test dates or application cutoff dates. Instead, if you are interested in applying, you should do so as soon as you meet the minimum qualifications.

Appendix 1

**Transportation Technologist, Senior
Analysis and Planning Option
Surviving KSAs**

Transportation Technologist, Senior
Analysis and Planning option
Surviving Knowledge, Skills and Abilities (KSAs)

NOTE: The following KSAs are both important to successful job performance and required upon entry into the A&P Transportation Technologist, Senior job. Listed below are the KSAs for the A&P option that meet these requirements. Because it is not possible to measure all of these KSAs with one exercise, the scheduling exercise will measure some of these KSAs and the writing exercise will measure other KSAs. Not all KSAs will be measured by the Scheduling Exercise or the Writing Exercise. The KSAs that will be measured by each exercise in the exam are listed in a previous section of this booklet. When reviewing the following KSA statements, the reader should note that the examples following the words “to include”, “such as”, and “as needed to” in the KSA statements are not always intended to be completely inclusive. In other words, there may be questions on the exam which cover areas not directly mentioned as an example in the KSA statements.

- Ability to communicate orally with subordinates as needed to provide daily task assignments and instructions.
- Ability to communicate orally with various government agencies such as the U.S. Coast Guard, EPA, ADEM, FHWA, and other federal and local government agencies and officials as needed to answer questions regarding the status of ALDOT projects and obtain authorization for construction work.
- Ability to communicate orally with various individuals such as consultants, contractors, government personnel, utility companies, suppliers, property owners, archaeologists, county engineers, railroad companies, government officials, and the general public as needed to obtain and provide information, resolve conflicts, and recommend courses of action.
- Ability to communicate technical information in writing to include agreements, contracts, bridge inspection reports, certifications, environmental findings, traffic studies, materials write-up for annual reports, and other reports as needed to provide information to supervisors, ALDOT personnel, FHWA personnel, and other governmental agencies.
- Ability to compose documents such as letters, status reports, and general correspondence as needed to request and provide information to others.
- Ability to communicate in writing following guidelines for readability to include writing style, content, grammar, and conciseness as needed to clearly present information to a diverse audience.
- Ability to write legibly as needed to provide instructions to others.
- Ability to manage one's own time as needed to meet project guidelines and plan advance meetings.
- Ability to organize and plan work activities as needed to manage project, determine appropriate projects stages and accomplish work goals.
- Ability to set priorities for activities to include individual subordinates' activities and one's own work assignment as needed to deal with several situations or problems at the same time.
- Ability to assign work to subordinates, considering subordinate's strengths and deciding which responsibilities can be delegated as needed to increase work group performance.
- Ability to counsel employees with personal or work problems as needed to assist employees in maximizing job performance.
- Ability to use motivational tools such as positive feedback and encouragement with subordinates as needed to increase subordinate work performance.
- Ability to recognize performance indicators which suggest the need for training for particular employees as needed to ensure tasks are accomplished.

- Ability to delegate work to subordinates as needed to ensure that projects, reports, tests, and plans are completed on time.
- Ability to schedule the work of subordinates to include overtime hours and requests for leave as needed to ensure that enough personnel are available in order to complete the work within the assigned time.
- Ability to acquire new knowledge from reading technical manuals, relevant periodicals, and textbooks as needed to stay abreast of professional standards and innovations.
- Ability to read and comprehend documents such as letters and correspondence as needed to obtain and provide information to others.
- Ability to read and comprehend manuals as needed to obtain and verify information regarding federal and state specifications.
- Ability to read and comprehend technical reports, contracts, and special provisions as needed to interpret and share information with others.
- Ability to interact with computer programs such as site manager or CPMS to include creating and accessing files and recording samples as needed to generate reports, create correspondence and use software applications.
- Ability to read maps such as county, state, and city maps as needed to obtain information regarding construction projects.
- Ability to determine whether a decision should be made on one's own or referred to a supervisor or another source as needed to make project decisions and modifications.
- Ability to attend to several situations and/or problems and/or responsibilities at the same time.
- Ability to build rapport with others such as co-workers, subordinates and contractors as needed to discuss problems, suggest modifications, correct performance and exchange information.
- Ability to calm hostile individuals such as irate citizens, politicians, contractors, and employees as needed to maintain an environment conducive for good job performance and maintain department public relations.
- Ability to interact with others in a considerate way that promotes good human relations as needed to supervise subordinates and relate to other ALDOT employees.
- Ability to remain calm, impartial, and flexible in dealing with others within ALDOT in potentially conflicting and tense situations.
- Ability to confront others when they have performance deficiencies or violate a policy, rule or procedure as needed to ensure subordinates recognize weaknesses and make necessary adjustments.
- Knowledge of ALDOT forms such as payroll forms, expenses, and leave forms as found in the ALDOT P&P manual to include proper use and completion as needed to document work hours, receive pay for appropriate time worked, and submit accurate paperwork to appropriate departments.
- Knowledge of grammar to include sentence structure, punctuation as needed to write correspondence, complete forms.
- Knowledge of basic management principles such as management by objectives, degree of supervision and hands-on supervision as needed to assess resources and make project assignments.
- Knowledge of performance appraisal procedures as needed to monitor and evaluate employees' work performance.
- Knowledge of Windows based software, Excel, Access, PowerPoint, and Word as needed to develop reports, create letters, spreadsheets, and certifications and to complete forms.